APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR		ATTORNEY DOCKET NO.
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EXAMINER
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ART UNIT	PAPER NUMBER
2172	

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Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

	Application No.	Applicant(s)	
	09/285,639	Joseph L. Hellerstein	
	Examiner	Group Art Unit	
	Anh Ly	2172	

☐ Responsive to communication(s) filed on _____.

☐ This action is **FINAL**.

☐ Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed** in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire _____3_____ month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

Disposition of Claims

☒ Claim(s) *1-23* _____ is/are pending in the application.

☐ Of the above, claim(s) _____ is/are withdrawn from consideration.

☐ Claim(s) _____ is/are allowed.

☒ Claim(s) *1-23* _____ is/are rejected.

☐ Claim(s) _____ is/are objected to.

☐ Claims _____ are subject to restriction or election requirement.

Application Papers

☒ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

☐ The drawing(s) filed on _____ is/are objected to by the Examiner.

☐ The proposed drawing correction, filed on _____ is ☐approved ☐disapproved.

☐ The specification is objected to by the Examiner.

☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

    ☐ All ☐ Some* ☐ None of the CERTIFIED copies of the priority documents have been

        ☐ received.

        ☐ received in Application No. (Series Code/Serial Number) _____ .

        ☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

    *Certified copies not received: _____ .

☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

☒ Notice of References Cited, PTO-892

☒ Information Disclosure Statement(s), PTO-1449, Paper No(s). ___2___

☐ Interview Summary, PTO-413

☒ Notice of Draftsperson's Patent Drawing Review, PTO-948

☐ Notice of Informal Patent Application, PTO-152

--- SEE OFFICE ACTION ON THE FOLLOWING PAGES ---

DETAILED ACTION

1.   The claims 1-23 are pending in this application.

Claim Rejections - 35 USC § 103

2.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness

rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in
> section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are
> such that the subject matter as a whole would have been obvious at the time the invention was made to a person
> having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the
> manner in which the invention was made.

3.   Claims 1-6, 8-17, and 19-23 are rejected under 35 U.S.C. 103(a) as being unpatentable

over US Patent No. 5,970,490 issued to Morgenstern in view of US Patent No. 5,724,571 issued

to Woods.

With respect to claim 1, Morgenstern discloses a method of automating navigation

between data with dissimilar structures including a source dataset containing one or more data

elements and at least one target dataset containing one or more data elements, the method

comprising the step of determining at least one collection of data elements from the at least one

target dataset that best matches a collection of data elements from source dataset as claimed

(heterogeneous database structures, relational tables, data elements and collection of data

elements: see abstract, col. 5, lines 26-60, col. 10, lines 52-67, col. 13, lines 12-15, col. 20, lines 46-67, and col. 21 lines 1-33).

Morgenstern does not explicitly indicate "distance metric between the at least one target collection and the source collection such that a user can select the at least one target collection given the at least one computed distance metric."

However, Woods discloses the distance metric and the computed distance metric (col. 9, lines 45-67, col. 10, lines 1-25, and lines 40-67, and col. 11, lines 1-10).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine the teachings of Morgenstern with the teachings of Woods so as to have a method of automating navigation between data with dissimilar structures including dataset, data elements, collection of data elements, distance metric and computed distance metric because the combination would provide a method for integrating data between the source and target data including providing an interoperability with specifications for transforming the data into a common intermediate representation of the data using the specifications, transforming the intermediate representation of the data into a specialized target representation using the specifications (Morgenstern - col. 2, lines 60-67, and col. 3, lines 1-34) in the navigation with dynamic data.

With respect to claim 2, Morgenstern discloses a method of automating navigation between data with dissimilar structures including a source dataset containing one or more data

elements and at least one target dataset containing one or more data elements as discussed in claim 1.

Morgenstern does not explicitly indicate "distance metrics are computed such that the computed distance metrics are presented to the user in a ranked order."

However, Woods discloses the computed distance metric in the ranking order (col. 10, lines 40-67, and col. 11, lines 1-10).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine the teachings of Morgenstern with the teachings of Woods so as to have a method of automating navigation between data with dissimilar structures including dataset, data elements, collection of data elements, distance metric and computed distance metric because the combination would provide a method for integrating data between the source and target data including providing an interoperability with specifications for transforming the data into a common intermediate representation of the data using the specifications, transforming the intermediate representation of the data into a specialized target representation using the specifications (Morgenstern - col. 2, lines 60-67, and col. 3, lines 1-34) in the navigation with dynamic data.

With respect to claim 3, Morgenstern discloses a method of automating navigation between data with dissimilar structures including a source dataset containing one or more data elements and at least one target dataset containing one or more data elements as discussed in claim 1.

Morgenstern does not explicitly indicate "presenting the collection to the user along with the computed distance metric."

However, Woods discloses the computed distance metric (col. 10, lines 40-67, and col. 11, lines 1-10).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine the teachings of Morgenstern with the teachings of Woods so as to have a method of automating navigation between data with dissimilar structures including dataset, data elements, collection of data elements, distance metric and computed distance metric because the combination would provide a method for integrating data between the source and target data including providing an interoperability with specifications for transforming the data into a common intermediate representation of the data using the specifications, transforming the intermediate representation of the data into a specialized target representation using the specifications (Morgenstern - col. 2, lines 60-67, and col. 3, lines 1-34) in the navigation with dynamic data.

With respect to claim 4, Morgenstern discloses a method of automating navigation between data with dissimilar structures including a source dataset containing one or more data elements and at least one target dataset containing one or more data elements as discussed in claim 1 and name associated with dataset (col. 10, lines 9-67 and col. 11, lines 1-7).

Morgenstern does not explicitly indicate "a respective name associated with dataset to the user along with the respective collection and the computed distance metric."

However, Woods discloses the computed distance metric (col. 10, lines 40-67, and col.

11, lines 1-10).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time

the invention was made to combine the teachings of Morgenstern with the teachings of Woods so

as to have a method of automating navigation between data with dissimilar structures including

dataset, data elements, collection of data elements, distance metric and computed distance metric

because the combination would provide a method for integrating data between the source and

target data including providing an interoperability with specifications for transforming the data

into a common intermediate representation of the data using the specifications, transforming the

intermediate representation of the data into a specialized target representation using the

specifications (Morgenstern - col. 2, lines 60-67, and col. 3, lines 1-34) in the navigation with

dynamic data.

With respect to claim 5, Morgenstern discloses SQL query for collection descriptor in the

relational databases as claimed (col. 1, lines 39-60, col. 9, lines 33-43, and col. 18, lines 51-67).

With respect to claim 6, Morgenstern discloses relational databases and attribute

associated with SQL query for collection descriptor as claimed (col. 10, lines 9-67, and col. 11,

lines 1-15).

With respect to claim 8, Morgenstern discloses target collection descriptor; removing

constraints associated with the at least one preliminary target collection descriptor until a non-null

element collection is obtained as claimed (col. 10, lines 9-67, col. 11, lines 1-15, col. 1, lines 39-60, col. 9, lines 33-43, and col. 18, lines 51-67).

With respect to claim 9, Morgenstern discloses source collection of data elements is specified by a source collection descriptor and the target collection of data elelement is specified by a target collection descriptor and the calculating the difference between constraints in the source collection descriptor and the target collection descriptor to compute the distance metric as claimed (col. 1, lines 39-60, col. 9, lines 33-43, and col. 18, lines 51-67).

With respect to claim 10, Morgenstern discloses the attributes of the constraints are weighted as claimed (col. 4, lines 22-46, col. 6, lines 13-67, col. 7, lines 1-5, col. 10, lines 9-18, and col. 15, lines 15-26).

With respect to claim 11, Morgenstern discloses SQL query for collection descriptor in the relational databases and attribute of constraint that has heavier weight associated therewith as claimed (col. 1, lines 39-60, col. 9, lines 33-43, and col. 18, lines 51-67, col. 4, lines 22-46, col. 6, lines 13-67, col. 7, lines 1-5, col. 10, lines 9-18, and col. 15, lines 15-26).

Claim 12 is essentially the same as claim 1 except that it is an apparatus rather than a method ('490 of see abstract, col. 5, lines 26-60, col. 10, lines 52-67, col. 13, lines 12-15, col. 20, lines 46-67, col. 21, lines 1-33, and '571 of col. 9, lines 45-67, col. 10, lines 1-25, and lines 40-67, and col. 11, lines 1-10), and is rejected for the same reasons as applied to the claim 1 hereinabove.

Claim 13 is essentially the same as claim 2 except that it is an apparatus rather than a method ('571 of col. 10, lines 40-67, and col. 11, lines 1-10), and is rejected for the same reasons as applied to the claim 2 hereinabove.

Claim 14 is essentially the same as claim 3 except that it is an apparatus rather than a method ('571 of col. 10, lines 40-67, and col. 11, lines 1-10), and is rejected for the same reasons as applied to the claim 3 hereinabove.

Claim 15 is essentially the same as claim 4 except that it is an apparatus rather than a method ('571 of col. 10, lines 9-67, and col. 11, lines 1-7), and is rejected for the same reasons as applied to the claim 4 hereinabove.

Claim 16 is essentially the same as claim 5 except that it is an apparatus rather than a method (col. 1, lines 39-60, col. 9, lines 33-43, and col. 18, lines 51-67), and is rejected for the same reasons as applied to the claim 5 hereinabove.

Claim 17 is essentially the same as claim 6 except that it is an apparatus rather than a method ('571 of col. 10, lines 9-67, and col. 11, lines 1-15), and is rejected for the same reasons as applied to the claim 6 hereinabove.

Claim 19 is essentially the same as claim 8 except that it is an apparatus rather than a method (col. 10, lines 9-67, and col. 11, lines 1-15, col. 1, lines 39-60, col. 9, lines 33-43, col. 18, lines 51-67), and is rejected for the same reasons as applied to the claim 8 hereinabove.

Claim 20 is essentially the same as claim 9 except that it is an apparatus rather than a

method (col. 1, lines 39-60, and col. 9, lines 33-43, and col. 18, lines 51-67), and is rejected for

the same reasons as applied to the claim 9 hereinabove.

Claim 21 is essentially the same as claim 10 except that it is an apparatus rather than a

method (col. 4, lines 22-46, col. 6, lines 13-67, col. 7, lines 1-5, col. 10, lines 9-18, and col. 15,

lines 15-26), and is rejected for the same reasons as applied to the claim 10 hereinabove.

Claim 22 is essentially the same as claim 11 except that it is an apparatus rather than a

method (Col. 1, lines 39-60, col. 9, lines 33-43, col. 18, lines 51-67, col. 4, lines 22-46, col. 6,

lines 13-67, col. 7, lines 1-5, col. 10, lines 9-18, and col. 15, lines 15-26), and is rejected for the

same reasons as applied to the claim 11 hereinabove.

Claim 32 is essentially the same as claim 1 except that it is an article of manufacture rather

than a method ('490 of see abstract, col. 5, lines 26-60, col. 10, lines 52-67, col. 13, lines 12-15,

col. 20, lines 46-67, col. 21, lines 1-33, and '571 of col. 9, lines 45-67, col. 10, lines 1-25, and

lines 40-67, and col. 11, lines 1-10), and is rejected for the same reasons as applied to the claim 1

hereinabove.

4.   Claims 7 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over US

Patent No. 5,970,490 issued to Morgenstern in view of US Patent No. 5,724,571 issued to Woods

and further of US Patent No. 5,767,854 issued to Anwar.

With respect to claim 7, Morgenstern and Woods as discussed in claim 1, discloses a method of automating navigation between data with dissimilar structures as claimed (heterogeneous database structures, relational tables, data elements and collection of data elements: see abstract, col. 5, lines 26-60, col. 10, lines 52-67, col. 13, lines 12-15, col. 20, lines 46-67, and col. 21 lines 1-33).

Morgenstern and Woods do not explicitly indicate "a multi-dimensional database and the step of performing the drill-up operation on the collection descriptor."

However, Anwar discloses the multi-dimensional databases and the drill-up operation (see abstract, col. 1, lines 45-67, col. 2, lines 1-15, and col. 4, lines 1-29 and lines 60-67).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine the teachings of Morgenstern and Woods with the teachings of Anwar so as to have a method of automating navigation between data with dissimilar structures including dataset, data elements, collection of data elements, distance metric and computed distance metric with the multi-dimensional database and the drill-up operation because the combination would provide a method for integrating data between the source and target data including providing an interoperability with specifications for transforming the data into a common intermediate representation of the data using the specifications, transforming the intermediate representation of the data into a specialized target representation using the specifications (Morgenstern - col. 2, lines 60-67, and col. 3, lines 1-34) in the navigation with dynamic data.

Claim 18 is essentially the same as claim 7 except that it is an apparatus rather than a method (see abstract, col. 1, lines 45-67, col. 2, lines 1-15, and col. 4, lines 1-29 and lines 60-67), and is rejected for the same reasons as applied to the claim 7 hereinabove.

Conclusions

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosures.

Broder et al. (US Patent No. 6,119,124)

Hoover et al. (US Patent No. 5,724,575)

Ellard (US Patent No. 5,999,937)

Lysakowski, Jr. (US Patent No. 5,446,575)

Pouschine et al. (US Patent No. 5,918,232)

Papierniak et al. (US Patent No. 6,128,624)

Guha (US Patent No. 6,108,651)

Maccabee et al. (US Patent No. 6,108,700)

Fahey (US Patent No. 5,970,476)

Bach et al. (US Patent No. 6,084,595)

Contact Information

6.   Any inquiry concerning this communication should be directed to Anh Ly whose telephone

number is (703) 306-4527. The examiner can be reached on Monday - Friday from 8:00 AM to

4:00 PM.

If attempts to reach the examiner are unsuccessful, see the examiner's supervisor, Kim Vu,

can be reached on (703) 305-4393.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

Washington, D.C. 20231

or faxed to:

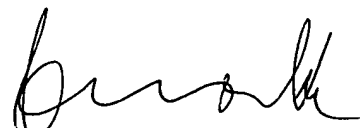(703) 308-9051 (for formal communications intended for entry)

or:

(703) 305-9724 or (703) 308-6606 (for informal or draft communications, please label

"PROPOSED" or "DRAFT")

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive,

Arlington, VA, Sixth Floor (receptionist).

Inquiries of a general nature or relating to the status of this application should be directed

to the Group receptionist whose telephone number is (703) 305-9600.

AL
Dec. 29th, 2000

KIM VU
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100